

CLASS 47, PLANT HUSBANDRY**SECTION I - CLASS DEFINITION**

This is the parent class for apparatus and processes employed in treating the earth and its products and includes all inventions relating thereto that have not been especially provided for in other classes.

SECTION II - REFERENCES TO OTHER CLASSES**SEE OR SEARCH CLASS:**

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| <p>30, Cutlery, appropriate subclasses for mere cutting implements adapted for use in plant husbandry, but of more general utility.</p> <p>83, Cutting appropriate subclasses for the cutting and slicing of material in general including vegetables and other foods.</p> <p>99, Foods and Beverages: Apparatus, appropriate subclasses for apparatus relating to the preservation and preparation of foods and beverages, including earth products, and for separating one distinguishable portion of a food item from another.</p> <p>111, Planting, appropriate subclasses for processes and implements for inserting in the ground seed, fertilizer, poison, plants, or other material or objects handled in a similar manner.</p> <p>118, Coating Apparatus, subclasses 13+ for apparatus for coating edible material.</p> <p>134, Cleaning and Liquid Contact With Solids, appropriate subclasses and the notes thereto for apparatus for applying liquid to solid earth products.</p> <p>160, Flexible or Portable Closure, Partition, or Panel, for (1) panel units in which a flexible fabric or other flexible sheet material forms the panel portion, (2) in the form of panel units formed of plural strips, slats, or panels interconnected for relative motion (excluding those connected only by a common operator or mounted on a common support), (3) panel units the form of portable partitions and (4) parts (1)-(3) combined with each other or with rigid closures or panels.</p> <p>172, Earth Working, appropriate subclasses, for subject matter relating only to working the earth. Combinations of earth working means with other means, such as for treating the earth by heating or for plant handling are in Class 47.</p> | <p>241, Solid Material Comminution or Disintegration, appropriate subclasses for the comminution of material in general including vegetables and other foods.</p> <p>366, Agitating, for apparatus for mixing materials with earth products.</p> <p>426, Food or Edible Material: Processes, Compositions, and Products, appropriate subclasses for products and processes of perservation and preparation of edible material, including earth products.</p> <p>427, Coating Processes, appropriate subclasses, especially subclass 4 for processes of coating plant members, including seeds, with compositions which do not affect their growth characteristics.</p> <p>428, Stock Material or Miscellaneous Articles, subclasses 17+ for either simulated or treated non-living, natural articles having the general appearance and structure of plants.</p> <p>435, Chemistry: Molecular Biology and Microbiology, subclass 93 and 185 for materials and processes that contain germinated seeds; subclasses 291.1+ for apparatus for malting or mashing; and appropriate subclasses for materials that contain molds, yeasts, bacteria plant cells or other living organisms, or for processes of making such materials or using such materials in fermentations, or propagating such living organisms, or for compositions or apparatus for use in such processes, or processes of making such compositions.</p> <p>504, Plant Protecting and Regulating Compositions, subclasses 116+ for compositions for treating terrestrial or aquatic plants or their habitat with chemicals which affect the growth characteristics of the plants and processes of mere use of said compositions.</p> <p>520, Synthetic Resins or Natural Rubbers, appropriate subclasses, particularly Class 523, subclass 123 for a composition containing a synthetic resin or natural rubber having utility as a plant receptacle composition; subclasses 124+ for a composition containing a synthetic resin or natural rubber which is claimed or solely disclosed as having enhanced degradability by exposure to an environmental stimuli or to processes of preparation thereof; and subclasses 132+ for a composition containing a synthetic resin or natural rubber having utility in situ as a soil conditioner or stabilizer or to preparation thereof.</p> |
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800, Multicellular Living Organisms and Unmodified Parts Thereof and Related Processes, for methods of plant breeding, methods of mutating plants, methods of producing plants using somatic cell fusion, methods of introducing nucleic acid into or rearrangement of genetic material within a plant and for the plants and plant parts per se.

SUBCLASSES

1.01 MISCELLANEOUS:

Patents not otherwise classifiable.

- (1) Note. Seeds treated for planting, as by coating, are found in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

58.1R, for miscellaneous processes.

SEE OR SEARCH CLASS:

- 71, Chemistry: Fertilizers, subclasses 5+ for compositions of seeds and fertilizer.
504, Plant Protecting and Regulating Compositions, subclasses 116.1 through 367 for compositions of seeds and growth regulating substances.

1.1 Apparatus and processes for the culture of mushrooms and other edible fungi, except yeast, comprising unobvious uses of mushroom fertilizers, mushroom beds and their structure, houses and caves adapted particularly for mushroom culture, and receptacles for growing and transporting mushroom spawn before planting in beds.

SEE OR SEARCH CLASS:

- 71, Chemistry: Fertilizers, subclass 5 for fertilizers of general use.
435, Chemistry: Molecular Biology and Microbiology, particularly subclasses 254.1 through 256.8 for unicellular fungi (including molds, rusts, yeasts, etc.) and processes and compositions involved in their propagation (i.e., maintenance, growth, production, purification, preserving, etc.); and subclasses 283.1+ for apparatus used

to perform said processes and make said compositions.

1.3

Methods and apparatus for culture of plants by means of electricity, other than electric heating; or utilizing magnetic force, for example, for production of fertilizers in the soil, killing of insects and weeds, stimulation of plant growth and treatment of seeds before planting.

SEE OR SEARCH CLASS:

- 204, Chemistry: Electrical and Wave Energy, for electrical and wave energy chemistry in general.
205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, for electrolysis in general.

1.4

Apparatus for or method of fostering the growth or cultivation of nonunicellular algae.

SEE OR SEARCH CLASS:

- 435, Chemistry: Molecular Biology and Microbiology, particularly subclasses 257.1 through 257.6 for unicellular algae (prokaryotic and eukaryotic), and processes and compositions involved in their propagation (i.e., maintenance, growth, production, purification, preserving, etc.); and subclasses 283.1+ for apparatus used to perform said processes and make said compositions.

1.41

Apparatus for or method of assisting the natural generation, propagation or reproduction of plant life by either a discriminate or indiscriminate transfer of pollen to fertilize a plant flower.

- (1) Note. To be classified here, there must be more than the locating of one plant near another or enhancing the pollen productivity of a flower.
(2) Note. Subject matter classified here mainly involves increasing the natural scattering of pollen or individual application of pollen to plant flowers.

1.42

Apparatus for or method of conditioning soil in which a plant is to be grown comprising separating soil from the ground and subjecting the

separated soil to a heat treatment to improve the soil for plant growing purposes.

SEE OR SEARCH CLASS:

111, Plant, subclass 118 and the subclasses indented thereunder, especially subclasses 120+ for devices that disturb the soil in situ and apply flame or the heat therefrom to the disturbed soil and see the search notes thereunder.

- 1.43** Apparatus for or method of destroying crop plants in situ for the purpose of reducing the number of such plants to enable the remaining plants to achieve a better growth.

SEE OR SEARCH CLASS:

56, Harvesters, appropriate subclasses for apparatus and methods for harvesting plants.
172, Earth Working, appropriate subclasses for apparatus and methods for destroying crop plants in situ by working the earth in which they grow, especially subclass 534 for a wheel or roller with peripherally spaced plant saving means.

- 1.44** Apparatus for or method of either destroying undesired vegetation in the vicinity of growing crop plants or inhibiting its growth by at least partially burning the undesired vegetation by directly applying thereto the blaze of a combustion action.

SEE OR SEARCH CLASS:

43, Fishing, Trapping, and Vermin Destroying, subclass 144 for similar devices that destroy insects by burning and see the search notes thereunder.
111, Planting, subclass 118 and the subclasses indented thereunder, especially subclasses 120+ for devices that disturb the soil in situ and apply flame on the products of a combustion action to the disturbed soil and see the search notes thereunder.

- 1.5** This subclass is indented under the class definition. Apparatus which includes a means specially adapted to brush, wipe or otherwise

engage an erect, growing plant and to transfer a liquid material to a surface of said plant.

- (1) Note. The material may be fertilizer, insecticide, herbicide or other plant coating, coloring, insulating or the like.

SEE OR SEARCH THIS CLASS, SUBCLASS:

1.01, for devices which are adapted to roll or slide along the surface of a lawn, turf or sod and to transfer thereto a fertilizer, herbicide, insecticide or the like.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, appropriate subclasses for brushing and wiping implements of general utility capable of applying any desired material to a surface of a plant or any other object.
43, Fishing, Trapping, and Vermin Destroying, subclasses 142+ and 143 for devices which brush or wipe a growing plant to dislodge insect parasites.
118, Coating Apparatus, subclasses 207+ for machines of general utility and adapted to contact an object to transfer a coating thereto.
427, Coating Processes, and note especially subclass 4 for processes of coating wherein the base is a plant member or animal specimen.

- 1.7** This subclass is indented under the class definition. Apparatus which includes a means to distribute a material into contact with an erect, growing plant and having either (1) a means to move parts of the plant, e.g., to expose them to the material or to protect the plants from injury by the device, (2) a means to disturb the soil around a plant to weed, mulch or till said soil, or (3) a means to detect the presence and/or position of the plant and to either move the distributor relative to the plant or to control the material supply or some other characteristic of the distributor.

- (1) Note. Where a patent claims the combination of material distributor with soil disturbing (e.g., scratching, plowing or cultivating), a disclosure that the mate-

rial is applied to a plant has been considered sufficient basis for classification in this subclass while a disclosure of disturbing the same area of ground that the material is applied to, before, after or during the material application, has been considered a basis for classification in Class 111.

- (2) Note. The plant manipulating means may consist of a blast of air in addition to that necessary to constitute the distribution.

SEE OR SEARCH CLASS:

- 111, Planting, appropriate subclasses for discharging of a material on the earth as an incident to, or in combination with the planting of a seed or other object or material in the soil, and for similar combinations of material distributors and soil disturbing means where the soil is disclosed as disturbed in the same area in order to facilitate penetration of the material into the soil.
- 118, Coating Apparatus, subclass 668 for control of a coating sprayer in response to some sensed condition of the object to be sprayed.
- 239, Fluid Sprinkling, Spraying, and Diffusing, appropriate subclasses, for means to distribute material onto the ground and/or growing plants where no particular relation between the plants and the distributing means is involved.
- 2** Methods and devices for preventing the freezing of trees and plants and their fruit.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 3, 9, 17 and 19.1-32, for devices capable of preventing frost.

SEE OR SEARCH CLASS:

- 126, Stoves and Furnaces, subclass 59.5, for smudge pots.
- 244, Aeronautics, subclass 136 for means for discharging and diffusing material from aircraft.
- 252, Compositions, subclass 70 for frost preventing compositions, subclass

305 for smokes, fogs, or gaseous primary dispersants, a period.

- 516, Colloid Systems and Wetting Agents; Subcombinations Thereof; Processes of Making, Stabilizing, Breaking, or Inhibiting, subclasses 1+ for colloid systems of gas or vapor continuous phase (smokes, fogs, aerosols, clouds, mists) or agents for such systems or making or stabilizing such systems or agents, when generically claimed or when there is no hierarchically superior provision in the USPC for the specifically claimed art.

- 3** Apparatus and processes for whitening growing celery.

SEE OR SEARCH CLASS:

- 504, Plant Protecting and Regulating Compositions, subclasses 116.1 through 367 for compositions which employ a specific chemical to affect the color of fruit, etc., or for plant growth regulating compositions.

- 4** Apparatus and processes for fashioning a growing hedge.

SEE OR SEARCH CLASS:

- 256, Fences, subclass 20 for hedge fences.

- 5** Includes apparatus and processes for ripening cotton.

- 5.5** Apparatus for or method of producing roots on a plant portion other than a root portion while the plant portion is still attached to the parent plant by covering said portion with a medium in which roots can grow so that the plant portion will be able to maintain independent growth after it is severed from the parent plant.

- (1) Note. A mere wrapping is not intended to be included here; however, a wrapping having properties so as to enhance or promote root growth is included.

- 6** Apparatus and processes for uniting parts of a tree or plant to another.

SEE OR SEARCH CLASS:

- 30, Cutlery, appropriate subclasses for mere implements adapted for use in

- plant husbandry but of more general utility.
- 7** The bud of a tree or plant is set into a part of a tree.
- 8** Apparatus and processes for repairing trees.
- SEE OR SEARCH CLASS:
30, Cutlery, appropriate subclasses for mere cutting implements adapted for use in plant husbandry but of more general utility.
- 9** Apparatus and processes for covering or mulching plants.
- SEE OR SEARCH CLASS:
111, Planting, subclass 102 for a process or apparatus for placing plants in soil through a mulch layer; and subclass 144 for mulch accessories claimed in combination with a planting machine.
- 10** Apparatus or processes for gathering the sap, gum or resin from pine or rubber trees.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
50, through 54.
- 11** Buckets, cups, spouts, and gutters for collecting the sap of the trees.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
50, through 54.
- 12** Tools used in obtaining the sap or gum.
- SEE OR SEARCH CLASS:
30, Cutlery, especially subclass 121 for mere cutting implements for cutting or scraping the bark of or grooving a tree.
- 14** Apparatus and processes for ascertaining the life in the seed.
- 15** The seeds are inclosed in a moistened strip rolled up.
- 16** The chamber or incubator for the seeds is provided with a heater.
- 17** Houses provided with transparent walls or with some other apparatus to accelerate the growth of vegetable life.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
19.1, for frames and their closures.
- SEE OR SEARCH CLASS:
52, Static Structures (e.g., Buildings), appropriate subclasses for a building structure or component which may be translucent or transparent but which does not define a feature specialized to plant husbandry.
- 18** The structure of the plant supports in the greenhouse.
- SEE OR SEARCH CLASS:
239, Fluid Sprinkling, Spraying, and Diffusing, subclass 209 for fluid distributing apparatus having a supply conduit fixed to the ceiling of a building which may be a greenhouse.
- 19.1** **BOTTOMLESS HOTBED OR COLD FRAME (INCLUDING COVER), APPARATUS OR METHOD:**
This subclass is indented under the class definition. Subject matter includes a structure, enclosed at least at the sides and top, for a growing medium used to raise seedlings.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
29.3, for planar, transparent cover.
- 19.2** **With heating or ventilating means:**
This subclass is indented under subclass 19.1. Subject matter includes a structure or a device for (a) raising the temperature of the growing medium or air or (b) to provide an opening to permit the escape of heat.
- 20.1** **COVER, SHADE, OR SCREEN:**
This subclass is indented under the class definition. Subject matter includes a structure for blocking sunlight, rain, wind, or other adverse condition detrimental to growth.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
2, for frost prevention.
- SEE OR SEARCH CLASS:
135, Tent, Canopy, Umbrella, or Cane, subclass 87 for portable shelter.
- 21.1 With irrigating means:**
This subclass is indented under subclass 20.1. Subject matter includes a device to provide moisture.
- 22.1 Mechanized (e.g., cable-post system):**
This subclass is indented under subclass 20.1. Subject matter includes the use of simple machines, such as reeled wire and tarpaulin, pivoted louvers, etc.
- 23.1 Tree foliage:**
This subclass is indented under subclass 20.1. Subject matter includes protecting structure for at least the leaves of a woody perennial.
- SEE OR SEARCH CLASS:
43, Fishing, Trapping, and Vermin Destroying, subclass 126 for tree fumigator.
- 23.2 Single tree:**
This subclass is indented under subclass 23.1. Subject matter includes the structure for only one woody perennial.
- 23.3 With heater:**
This subclass is indented under subclass 23.2. Subject matter includes a device to raise the air temperature.
- SEE OR SEARCH CLASS:
126, Stoves and Furnaces, subclass 59.5 for orchard heating stove, e.g., smudge pots.
- 24.1 For fruit:**
This subclass is indented under subclass 20.1. Subject matter includes a structure designed for edible material growing on a tree.
- 25.1 Lath or slat type:**
This subclass is indented under subclass 20.1. Subject matter includes narrow strips, of e.g., wood, arranged in a pattern.
- 29.1 Transparent or translucent:**
This subclass is indented under subclass 20.1. Subject matter includes at least a portion of the structure designed to allow transmission of visible light.
- 29.2 Rigid type:**
This subclass is indented under subclass 29.1. Subject matter includes the transparent or translucent structure being stiff, inflexible, unyielding to rain, snow, or wind forces.
- 29.3 Planar, e.g., glass pane(s):**
This subclass is indented under subclass 29.2. Subject matter includes the stiff, inflexible, unyielding portion being flat.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
19.1, for bottomless hotbed or cold frame with a transparent cover.
- SEE OR SEARCH CLASS:
52, Static Structures, (e.g., Buildings), subclass 204.5 for window.
- 29.4 Composition:**
This subclass is indented under subclass 29.1. Subject matter includes the physical or chemical make-up of the structure.
- 29.5 Adjustable on supporting structure or having means allowing adjusting, e.g., for weather, ventilation, expansion:**
This subclass is indented under subclass 20.1. Subject matter includes a device permitting movement of at least a portion of the structure relative to the remainder of the structure to facilitate changes in temperature, etc.
- 29.6 Collapsible or nestable:**
This subclass is indented under subclass 20.1. Subject matter includes a configuration allowing the structure to be (a) disassembled to simple components or (b) stacked.
- 29.7 Created from folded or bent blank:**
This subclass is indented under subclass 20.1. Subject matter includes a configuration created from a single sheet of material formed or deformed into a desired shape.
- 30** The inclosure has an open top.

- 31** The inclosure has a reticulated screen or is formed as a screen.
- 31.1 Perforated or apertured:**
This subclass is indented under subclass 20.1. Subject matter includes a structure with holes.
- 32** Covers for the soil around the plant which may also serve as a support for the berries on the plant.
- 32.1 Inflatable:**
This subclass is indented under subclass 28.1. Subject matter wherein a portion of the means for enclosing a plant, i.e., the cover, is defined by a fluid sealed compartment capable of containing a fluid in a gaseous state and further wherein the compartment is capable of maintaining the fluid at a pressure greater than ambient pressure.
- 32.2 Machine for placing:**
This subclass is indented under subclass 20.1. Subject matter includes a mechanical device that helps in deploying the structure.
- 32.3 Method:**
This subclass is indented under subclass 20.1. Subject matter is for processes of using a structure for blocking sunlight, rain, wind, or other adverse condition detrimental to growth.
- (1) Note. The process of making is classified in the appropriate manufacturing class.
- 32.4 TREE TRUNK GUARD OR PROTECTOR:**
This subclass is indented under the class definition. Subject matter includes a device or structure that minimizes damage to the main stem of a woody perennial.
- SEE OR SEARCH CLASS:
52, Static Structures, (e.g., Buildings), subclass 101 for animal blocking lateral projection, trap, or scarer.
- 32.5 Tree supported, e.g., belt type or band type including compositions:**
This subclass is indented under subclass 32.4. Subject matter includes the device or structure being designed for placement and fastening around the main stem above the ground and can be a flexible strap with a fastening arrangement to hold the strap.
- SEE OR SEARCH CLASS:
43, Fishing, Trapping, and Vermin Destroying, subclass 108 for tree trunk insect trap.
- 32.6 Method:**
This subclass is indented under subclass 32.4. Subject matter is for processes of using a device or structure that minimizes damage to the main stem of a woody perennial.
- (1) Note. The process of making is classified in the appropriate manufacturing class.
- 32.7 ROOT TRAINER, OR BARRIER**
This subclass is indented under the class definition. Subject matter includes a structure that directs or blocks the plant underground portion.
- SEE OR SEARCH CLASS:
52, Static Structures, (e.g., Buildings,) subclass 101 for animal blocking lateral projection, trap or scarer.
- 32.8 Method:**
This subclass is indented under subclass 32.7. Subject matter is for processes of using a structure that directs or blocks the plant underground portion.
- (1) Note. The process of making is classified in the appropriate manufacturing class.
- 33** Beds and borders or other ornamental configurations in a flower or garden bed.
- SEE OR SEARCH CLASS:
52, Static Structures (e.g., Buildings), subclass 102 for an earth supported coping or edging of more general application.
- 39** Apparatus or supports for holding plant or flower pots or receptacles having sprinkler, water pipes or special plant-treating means.
- (1) Note. Search this class, subclass 41.01.

- (2) Note. See Class 248, Supports, for supports generally.
- (3) Note. See Class 211, Supports: Racks, for plant stands not restricted by inclusion of special watering or plant-treating means.
- (4) Note. For flower pot stands not limited by structure to such use, see Class 248, Supports, subclasses 128+ and 146+.
- 40** Means for supporting flowerpots in or near a window of a house and modified therefor.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
68, for a window box.
- SEE OR SEARCH CLASS:
211, Supports: Racks.
- 40.5** This subclass is indented under the class definition. Devices in the form of a base or stand for supporting the trunk of a cut tree in a generally upright position and with its severed end in contact with liquid contained by a reservoir which is in, on, or under the base. The reservoir usually is in the form of a receptacle (e.g., container, cup, pan, etc.) and may or may not be an integral component of the base.
- (1) Note. This subclass comprises patents for Christmas tree holders with a liquid supply, which patents previously were classified in the staff support area of Class 248, Supports. The presence of a liquid supply for the purpose of keeping a cut tree fresh and moist, in addition to a means to support the tree, is considered to make this subject matter more appropriate for this class than for Class 248.
- (2) Note. The claiming of a supporting base with a liquid reservoir is not sufficient for placement herein in the absence of an indication that the liquid is for a purpose beneficial to the tree (e.g., for keeping it fresh or green or moist, etc.). If, on the other hand, the liquid serves only as ballast, for example, classification is in Class 248. In the rare instance when the disclosure is silent as to the purpose of the liquid, then it is presumed to be for the benefit of the tree.
- (3) Note. The claiming of (1) means to support a liquid reservoir in an operative relationship to the severed end of the tree, or (2) a spatial relationship of the severed end (as supported) to the underlying surface on which the base rests for the purpose of accommodating a liquid reservoir, are acceptable alternatives to the claiming of the liquid reservoir.
- (4) Note. In order to collect as much as possible of the related art, cross-referencing is extended to include the disclosure of a liquid reservoir, provided, of course, that the 'beneficial purpose' qualification is met.
- SEE OR SEARCH CLASS:
248, Supports, subclasses 519+ for a base or stand type of supporting device having means for receiving a staff, wherein the staff may be a tree trunk. Classification in that area is upon features such as how the staff is gripped, etc.; accordingly, cross-reference copies of the patents of this subclass (40.5) are placed there on that basis.
- 41.01 Flower holder:**
Device for holding or supporting a cut flower or plant.
- (1) Note. The line between this class and Class 206, Special Receptacle or Package is: The combination of a receptacle and a plant or a receptacle modified for a purpose running to the preservation of the life of the plant is classified in this subclass. Where the receptacle is utilized merely for a shipping purpose and is of the Class 206 type, it is classified therein. The same line is followed with Classes 220, Receptacles and 229, Envelopes, Wrappers, and Paperboard Boxes.
- SEE OR SEARCH CLASS:
24, Buckles, Buttons, Clasps, etc., subclasses 5+ for flower holders where the flowers are to be attached to clothing.

- 27, Undertaking, subclass 30, for structures which may have flowers secured thereon and designed to be used in covering the open grave.
- 206, Special Receptacle or Package, see (1) Note. See subclass 423 for a plant, flower or tree receptacle.
- 428, Stock Material or Miscellaneous Articles, subclasses 17+ for either stimulated or treated nonliving, natural articles having the general structure and appearance of plants, and especially subclass 23 for such a product with a holder, and subclass 27 for a frame or structure upon which flowers or foliage, either natural or artificial, may be secured to produce a design. See also "SEARCH CLASS" notes in subclass 17 of that class (428).
- 41.1** This subclass is indented under subclass 41.01. Apparatus in which a receptacle is at least partially embedded in the ground or in a fixed structure such as a stone grave marker.
- 41.11** This subclass is indented under subclass 41.01. Apparatus comprising a means engaging the stem or any portion of a cut flower to maintain the same in a desired position in a container, the said means being supported at the container top.
- 41.12** This subclass is indented under subclass 41.01. Apparatus comprising a device made of a yieldable material into which the stem end of the flower is forcibly thrust so as to create an opening in the material and be held thereby, the device being adapted for use with a container, support, etc.
- (1) Note. A device with a pre-existing, discrete opening which the stem merely enlarges is not included, though devices with numerous minute porelike openings are included.
- (2) Note. The stem may be provided with a strengthening wire or a pick which is forcibly thrust into the yieldable material.
- 41.13** This subclass is indented under subclass 41.01. Apparatus comprising a device especially adapted to hold or at least to limit movement of the end portion of a stem of a cut flower in all lateral directions.
- 41.14 Having ground anchor support:**
This subclass is indented under subclass 41.01. Subject matter wherein a device is provided with means to mount and secure the device into the earth.
- 41.15 Single stem type:**
This subclass is indented under subclass 41.01. Subject matter wherein a device is structured to hold or support only one flower or plant.
- 42** Devices for supporting trees or their limbs.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
40.5, for a support for a cut tree in the form of a stand or base with a liquid reservoir for supplying moisture to the severed end of the tree.
44, for devices for supporting plants, flowers, vines or small shrubs, hops and grapes.
- SEE OR SEARCH CLASS:
248, Supports, subclass 538 for a bracket type of supporting device having means for receiving an inclined staff, which staff may be in the form of a natural or an artificial branch of a tree which is to be attached to a tree trunk or to a trunk-like member for the purpose of filling out or creating a "tree".
- 43** The prop, brace or support rests on or is driven into the ground.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
44, through 47.
- SEE OR SEARCH CLASS:
248, Supports, subclasses 351+ for props in general.
- 44** Devices for supporting plants, flowers, vines or small shrubs, hops and grapes.
- 45** The support is in the form of a cage or a plurality of supports, poles, stakes, or racks are joined together.

- (1) Note. Hop and grape vine supports are found here as well as in subclasses 46 and 47 of this class.
- 46** The support has a linear extension.
- (1) Note. Grapevine trellises are included when they have linear arrangement.
- 47** Supports for a single plant or plants in clusters; generally with a vertical rod or stake.
- (1) Note. Mostly for small plants, but includes bean, hop, and grape poles.
- 48.5** Apparatus and devices of container or cartridge form usually inserted or buried permanently in the ground near growing plants and adapted to contain water or other material utilized by the plants to encourage the growth thereof.
- (1) Note. The water or other material usually may be discharged into the soil by means of some special feature of the device, such as perforations in the container.
- SEE OR SEARCH CLASS:
111, Planting, subclasses 118+ for implements and machines having earth working means and means for directing liquid, gas or vapor into contact with or beneath the surface of the soil.
405, Hydraulic and Earth Engineering, subclasses 36+ for installed irrigation devices or systems functioning to conduct the flow of water below ground or in open channels.
- 50** Receptacles for receiving sap, generally, from a maple tree, and the necessary appurtenances thereto.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
11,
- 51** The combination of the bucket, its cover, and spout for connecting it to a hole bored in a tree.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
11,
- 52** The conduit that conveys the sap from tree to bucket.
- 53** Provided with means for supporting the bucket.
- 54** Covers for the sap bucket.
- 55** Stems generally made of wire for attaching to the short stem or calyx of a flower.
- 56** Strips or ribbons to which seeds are secured in spaced relation.
- SEE OR SEARCH CLASS:
53, Package Making, subclass 450 for methods and subclasses 545+ for apparatus for forming seed tapes or ribbons.
111, Planting, subclass 109 for seed tape combined with planting apparatus therefor.
- 57.5** Devices for injecting materials into living plants, e.g., trees, and injection processes which are peculiar to the treatment of living plants.
- (1) Note. Many of the patents in this subclass are for the injection of coloring or preserving material into trees to produce colored or preserved timber.
- (2) Note. See this class, subclass 48.5, for devices designed to be buried in the soil for applying water, fertilizer, or the like.
- (3) Note. See Class 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclass 402, for processes of injecting wood with coloring material and Class 427, Coating Processes, appropriate subclasses, especially subclass 291, for coating or impregnating wood other than standing timber.
- (5) Note. See Class 111, subclasses 118+ for devices for impregnating the soil with liquid or gas, the devices having earthworking means.
- 57.6** Coated or impregnated seed not more specifically provided for elsewhere.

SEE OR SEARCH CLASS:

- 71, Chemistry: Fertilizers, subclasses 5+ for seeds and fertilizers.
- 424, Drug, Bio-Affecting and Body Treating Compositions, for seeds employed as bait material with a biocide or repellent or processes of treating a seed with a biocide.
- 428, Stock Material or Miscellaneous Articles, appropriate subclasses, especially subclasses 15+ for other "treated" natural products and subclasses 403+ for coated particulate matter.
- 435, Chemistry: Molecular Biology and Microbiology, subclass 185 for materials containing germinating seeds, and subclass 93 for processes that include germinating seeds.
- 504, Plant Protecting and Regulating Compositions, subclass 100 for seed coated with agricultural chemicals other than fertilizers and subclasses 116.1-367 for compositions which enhance the germinating of a seed.
- 800, Multicellular Living Organisms and Unmodified Parts Thereof and Related Processes, subclasses 295+ for plants and separated or severed parts thereof that have not undergone any modification or treatment subsequent to their separation; e.g., untreated seeds, etc.

57.7 COATING, DUSTING, OR HOT OR COLD FOGGING MACHINE OR METHOD:

This subclass is indented under the class definition. Subject matter includes a layer of (a) a liquid or (b) a powdery substance or (c) treated air or other gas over the earth or earth product.

- (1) Note. Included in this subclass are devices and processes using droplets of or misting, sprinkling, diffusing, or scattering of material over plants.

SEE OR SEARCH CLASS:

- 118, Coating Apparatus, subclass 200 for specific structure, e.g., brush, used in applying material.

- 239, Fluid Sprinkling, Spraying, and Diffusing, subclass 525 for specific structure, e.g., a nozzle, used in disseminating liquid or fluent material.
- 427, Coating Processes, subclass 429 for using the structure, e.g., brush, applying material.

58.1 MISCELLANEOUS PROCESSES:

This subclass is indented under the class definition. Subject matter including processes employed in treating the earth and its products not provided for elsewhere.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 1.1, 1.3, 2-9, 14, and 59-65 for processes relating to the subject matter thereof.

SEE OR SEARCH CLASS:

- 34, Drying and Gas or Vapor Contact With Solids, see (2) Note above.
- 99, Foods and Beverages: Apparatus, appropriate subclasses for miscellaneous food preparation apparatus.
- 118, Coating Apparatus, see (2) Note above, and see section VIII of the class definition of Class 118 for location of patents relative to coating edible material.
- 134, Cleaning and Liquid Contact With Solids, see (2) Note above.
- 172, Earth Working, subclass 1 for processes involving only earth working.
- 366, Agitating, see (2) Note.
- 424, Drug, Bio-Affecting and Body Treating Compositions, for a fungicidal, insecticidal, bactericidal, or disinfecting composition which may be applied to a plant, seed or the soil and for a process which is no more than the mere use of said composition.
- 426, Food or Edible Material: Processes, Compositions, and Products, appropriate subclasses for processes of preparing plant material for consumption.
- 435, Chemistry: Molecular Biology and Microbiology, subclasses 440+ for processes of altering the genetic material of plant cells by use of mutation, cell fusion and nucleic acid manipulation and subclasses 410+ for plant cells or cell lines, per se and composi-

- tions thereof; processes of propagating, maintaining or preserving a plant cell or cell line; processes of regenerating plant cells into tissues, plant parts or plants per se where no genotypic change occurs; medium therefore.
- 504, Plant Protecting and Regulating Compositions, subclasses 116.1 through 367 for compositions for treating terrestrial or aquatic plants or their habitat with a specific chemical which affects the growth characteristics of the plants and for the processes of mere use of said compositions.
- 800, Multicellular Living Organisms and Unmodified Parts Thereof and Related Processes, appropriate subclasses for plant breeding processes including a step of sexual hybridization, methods of mutating a plant, methods of producing a plant using somatic cell fusion, and methods of introducing nucleic acid into a plant or rearrangement of genetic material within the plant.
- 59** This subclass is indented under the class definition. Apparatus and processes for fostering growth beyond germination of plants in a nutrient environment and without soil.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 14, for structures adapted only for germinating seeds in water and without nutrient solution, usually provided with means for identifying the ear or batch whence the seeds came for the test.
- 79+, for structures adapted to hold either soil or inert powder, and to supply either plain water or nutrient solution thereto.
- SEE OR SEARCH CLASS:
- 435, Chemistry: Molecular Biology and Microbiology, subclass 93 for patents relating to the sprouting of seeds for making malt.
- 60** This subclass is indented under subclass 59. Device comprising an enclosed space or cavity in a container where plants or crops are grown from seeds, bulbs, sprouts or shoots.
- 61** This subclass is indented under subclass 60. Apparatus wherein the initial stage of growth is begun and a sprout is the final result.
- 62** This subclass is indented under subclass 59. Apparatus wherein nutrient is automatically supplied to seeds, seedlings or plants at intervals or continuously to revitalize or refresh.
- 63** This subclass is indented under subclass 59. Apparatus comprising a receptacle adapted to hold each seed or plant apart from other seeds or plants.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 85+, for a plant receptacle adapted to separate individual plants nurtured in soil.
- SEE OR SEARCH CLASS:
- 248, Supports, subclass 27.8 for plant holders.
- 64** This subclass is indented under subclass 63. Apparatus which is a permeable prop upon which only the roots may rest or by which the entire plant may be held in an upright position.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 80, for a porous flower pot containing a plant nurtured in soil.
- 65 DYNAMIC PLANT RECEPTACLE TRANSPORT:**
This subclass is indented under the class definition. Device comprising containers kinetically manipulated so that seeds or plants are exposed to heat or sunlight or other weather conditions for their nurturing and growth.
- 65.5 RECEPTACLE FOR GROWING MEDIUM:**
This subclass is indented under the class definition. Apparatus or processes that comprise a pot, box, or other container adapted to hold earth, soil, or a manufactured growing composition in which a plant is to be grown.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 41.01, for cut flowers in a receptacle that may be in or out of soil.
- 56, for sheets of growth medium which are not contained in a receptacle.
- 59+, for growing plants in water culture receptacles.

SEE OR SEARCH CLASS:

- 52, Static Structures (e.g., Buildings), appropriate subclasses, for roof structure, per se.
- 523, Synthetic Resins or Natural Rubbers, particularly subclass 123 for a composition having utility as a plant receptacle or to processes of preparing a growing medium.

65.6 Drain covers:

This subclass is indented under subclass 65.5. Apparatus including a specific cover for the drain opening to permit drainage under appropriate conditions and to prevent the drain from becoming plugged by the growing medium.

SEE OR SEARCH CLASS:

- 4, Baths, Closets, Sinks, and Spittoons, subclasses 650+ for drain covers not specific to plant husbandry.
- 210, Liquid Purification or Separation, appropriate subclasses, for filters that will allow water to pass, but retain solids.

65.7 Specific container material:

This subclass is indented under subclass 65.5. Apparatus wherein the patentable feature resides in the walls of the receptacle being made of a specific material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 74, for a biodegradable material.

65.8 Flaccid material (e.g., bag):

This subclass is indented under subclass 65.7. Apparatus wherein the container material is a flaccid material such as a fabric bag.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 66.4, for stiff foldable materials like paper or cardboard.
- 78, for root ball bags which control root growth.

SEE OR SEARCH CLASS:

- 405, Hydraulic and Earth Engineering, subclass 262 for a retaining wall formed from bags.

65.9 Sheet of plants (e.g., roof-top garden):

This subclass is indented under subclass 65.5. Walled container in which the container is designed to support a sheet of plants as in a bench or roof top garden.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 1.01F, for sheets of plants growing in a field or a field which has been modified to be hospitable to a sheet of plants as for example, a football field.
- 18, for benches which support multiple containers.
- 82, and 83, for tiered containers forming a roof or covering a slope.
- 56, for sheets of plant material without a container.

66.1 Sectional construction:

This subclass is indented under subclass 65.5. Apparatus in which a container is formed from a plurality of discrete sections which may be readily assembled or disassembled.

66.2 Push out bottom closure:

This subclass is indented under subclass 66.1. Apparatus including a reusable peripheral wall and a bottom which is fictionally or removably attached in order to eject the plant from the peripheral wall.

SEE OR SEARCH CLASS:

- 206, Special Receptacle or Package, appropriate subclasses for containers having movable walls.

- 66.3 Foldable or hingedly connected sections:**
This subclass is indented under subclass 66.1. Apparatus in which the container is formed from foldable material or the sections are pivotally connected to each other.
- 66.4 Integral hinge:**
This subclass is indented under subclass 66.3. Apparatus wherein the hinge means is integral with the walls of the receptacle, i.e. scored paper or cardboard.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 66.5, for integral hinges forming an array of cells.
- 65.8, for flaccid material like cloth or plastic foil forming an array of cells
- SEE OR SEARCH CLASS:
- 220, Receptacles, subclasses 4.22+, 4.29, and 531 for a receptacle having hinged sections or walls.
- 229, Envelops, Wrappers, and Paperboard Boxes, subclasses 400+ for integral hinges in stiff panels.
- 383, Flexible Bags, subclass 33, for flaccid hinges.
- 66.5 Array of cells:**
This subclass is indented under subclass 66.1. Apparatus in which container sections form an array of connected cells.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 56, for an array of plants or an array of porous modules (not containers).
- 82, and 83, for tiered containers forming a roof or covering a slope, a multilevel array.
- 85, for an array of containers formed by a divider in a peripheral frame.
- 86, for a plurality of containers which are adapted to be assembled into a planar array of cells.
- 87, for a monolithic body forming an array of cells.
- SEE OR SEARCH CLASS:
- 405, Hydraulic and Earth Engineering, subclass 262 for a multilevel array of containers used as a retaining wall and subclass 284 for a multilevel array of containers having earth anchors.
- 66.6 Combined:**
This subclass is indented under subclass 65.5. Apparatus in which the plant receptacle is combined with one or more diverse device such as a lamp, bookcase, indicia means, air purifier, etc.
- 66.7 Method of using a plant receptacle:**
This subclass is indented under subclass 65.5. Subject matter that deals with a process related to a plant receptacle or the use thereof.
- 67** This subclass is indented under subclass 65.5. Device adapted to hold a suspended flower pot.
- SEE OR SEARCH CLASS:
- 248, Supports, subclass 317 for a device for supporting an article by hanging it from an overhead member.
- 68** This subclass is indented under subclass 65.5. An appurtenance constructed for outdoor use and adapted to be juxtaposed to and contiguous with the sill of an opening in a wall wherein said appurtenance is further adapted to contain soil with growing plants therein or to contain already potted growing plants.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 40, for window-type plant stands.
- 69** This subclass is indented under subclass 65.5. Device wherein said container completely encloses the plant and there is a cyclic use of the moisture in the enclosure.
- 70** This subclass is indented under subclass 65.5. Device which is a lattice structure used to vertically support a gangling plant or flower.
- SEE OR SEARCH CLASS:
- 248, Supports, subclass 27.8 for plant holders.
- 71** This subclass is indented under subclass 65.5. A shallow vessel used to support the plant receptacle of ... wherein (1) air and water may be introduced to the plant roots, and (2) excess water may be accumulated therein.

- 72** This subclass is indented under subclass 65.5. A facade that is a fancy flower pot dressing designed to surround the outer crock wall but not cover the top of the pot so that the receptacle conveys a better appearance than a plain earthen crock.
- 73** This subclass is indented under subclass 65.5. Apparatus in which a container facilitates transference by (1) being readily removable from the soil so as to avoid injury to the roots therein, or (2) being a specially constructed device to remove a living plant from the earth.
- SEE OR SEARCH CLASS:
- 37, Excavating, subclass 302 for device for removing stumps, or the like, together with root surrounding soil from the earth.
- 111, Planting, subclass 101 for an apparatus which removes a plant from the soil for transplanting purposes or sets a plant into soil and which may use a transplanting container.
- 175, Boring or Penetrating the Earth, appropriate subclasses for a process or apparatus for boring a hole in the earth.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 132 for means for pulling roots from the earth.
- 74** This subclass is indented under subclass 73. Container wherein the receptacle is decomposable in the ground.
- 75** This subclass is indented under subclass 73. A series or set of containers fitting one container within the other thus having inner and outer receptacles.
- 76** **Big ball tree:**
This subclass is indented under subclass 73. Container specially adapted to hold a large living plant or tree with its root structure and surrounding soil intact.
- (1) Note. For unearthing plants or buried objects without transplanting, see Class 171.
- 77** **Seedling:**
This subclass is indented under subclass 73. Container or container assembly specially adapted to hold a very small or young tree plant.
- 78** This subclass is indented under subclass 73. Interwoven or interworked device usually of a fabric, wire, or plastic type material to protect the plant or tree during uprooting, moving and replanting of the tree or plant.
- 79** This subclass is indented under subclass 65.5. Device for supplying water or water vapor to the soil and roots to refresh or revitalize the plant.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 59+, for promulgating growth of plants in a nutrient solution without soil.
- 80** This subclass is indented under subclass 79. Device wherein a container, per se, or rocks or sponge type material in the receptacle is adapted to retain water.
- 81** This subclass is indented under subclass 79. Device comprising a filamentous material adapted to water the plants soil and roots by capillary action.
- 82** This subclass is indented under subclass 79. Device in which plants may be placed or caused to grow at various levels.
- (1) Note. Subject matter for this subclass usually comprises a receptacle with openings spaced at varying levels, from which plants protrude or a stand with receptacles spaced at different levels.
- SEE OR SEARCH CLASS:
- 248, Supports, subclasses 128+ and 146+ for flower pot stands not limited by structure to such use.
- 83** This subclass is indented under subclass 65.5. Device in which plants may be placed or caused to grow at diverse levels.
- (1) Note. See the note under the definition to subclass 82 in this class (47).

84 This subclass is indented under subclass 65.5. Apparatus in which the receptacle is specially designed for convenience in the transpiration of living plants or plant bulbs.

- (1) Note. See the note under the definition to subclass 41.01 in this class (47), for the line between this class and Class 206, Special Receptacle or Package.
- (2) Note. For packaging methods and apparatus, see Class 53, Package Making.

85 This subclass is indented under subclass 65.5. Device used to partition the receptacle, e.g., separable divider rack of an ice tray.

- (1) Note. Subject matter under this subclass is distinguished from modular and monolithic in that modular provides for individual separate receptacles for insertion into an array; monolithic devices are comprised of static compartments or cells that are not separable from the array, while dividers are generally planed surfaces placed within a receptacle to form smaller compartments.

86 This subclass is indented under subclass 65.5. Device in which a multitude of individual units such as plants, seedlings or pots are formed into an array.

- (1) Note. See the note under the definition to subclass 85 in this class (47).

87 This subclass is indented under subclass 65.5. Device formed as a single unit with compartments therein for seedlings, plants or bulbs.

- (1) Note. See the note under the definition to subclass 85 in this class (47).

88 **SOIL WARMING FOR MELON GROWING:**

This subclass is indented under the class definition. Subject matter includes heating the earth where gourds are raised.

89 **FOR POTATO, METHOD OR APPARATUS:**

This subclass is indented under the class definition. Subject matter includes a process or device for an erect American herb (*Solanum tuberosum*) of the nightshade family widely cultivated as a vegetable crop.

CROSS-REFERENCE ART COLLECTIONS

The documents in the following collections contain only cross-references which have been placed without regard to their original classification or to their claimed subject matter and are therefore not exhaustive of the art or subject matter but are only examples thereof. Consequently, a complete search for art or subject matter provided for here would require a review of the higher portions of the classification schedule.

901 **PLANT CONTAINER WITH FLATS, FILLING, PLANTING, OR CONVEYING:**

Cross-reference art collection of documents relating to planting a seedling flat, filling a container with root media, or conveying a flat, media, or a container.

902 **Including a recycled component (e.g., tires):**

Subject matter which includes one or more components or materials which are being reused or recycled.

- (1) Note. Biodegradable materials, as found in this class (47), subclass 74, should not be collected here. Tires used as a retaining wall or old bottles used as a water reservoir are examples of subject matter which should be placed in this subclass.

903 **Operator means for cold-frame or window:**

Subject matter which includes an operator in combination with a greenhouse, cold-frame, or growth chamber to automatically vent excess heat by opening some portion of the structure.

904 **OPENWORK CONTAINER FOR A GROWING MEDIUM (E.G., WIRE BASKET):**

A plant receptacle comprising a rigid gridwork container such as might be formed by intersecting or interwoven elongated strips or strands of metal, e.g., a cage or wire basket.

905 TO REMEDIATE CONTAMINATED SOIL:

Cross-reference art collection of documents relating to revitalizing toxic or otherwise unusable earth by growing viable plants.

FOREIGN ART COLLECTIONS

The definitions of the Foreign Patent/NPL Art Collections below correspond to the definitions of the abolished subclasses from which these collections were formed. See the Foreign Patent/NPL Art Collection schedule for specific correspondences.

FOR 100 MISCELLANEOUS PROCESSES

Foreign art collections including miscellaneous processes.

END